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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/177,815	10/23/1998	KYOUNG-SU KIM	1363.1004/MD	3622

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EXAMINER

PHAM, ROBERT T

ART UNIT	PAPER NUMBER
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2611

DATE MAILED: 07/18/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/177,815

Applicant(s)

KIM ET AL.

Examiner

Robert T Pham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_ 6) ☐ Other: \_\_\_\_

## DETAILED ACTION

1. Applicant's arguments in the response on June 26, 2002 have been considered and persuasive. The following is a non-final Office Action in order to introduce the newly found Bretl reference.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson U.S. Patent 6,226,794, in view of Bretl U.S. Patent 5,173,774.

Regarding claims 1-4, Anderson discloses:

Selecting one of a digital broadcasting channel and an analog broadcasting channel is shown in Figure 1A (control signal from 126 to 106), and described in column 6, lines 53-58;

Receiving and separating the digital broadcasting signal into MPEG processed video and audio signal is shown in Figure 1C (160); and described in column 5, lines 15-37;

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Receiving and separating the analog broadcasting signal into analog video and analog audio signal is shown in Figure 1A (134); and described in column 4, lines 51-56;

Encoding MPEG video signal is shown in Figure 1C (175), and described in column 5, lines 58-62;

Selectively transmitting the additional information overlapped with the analog video signal or with the MPEG processed signal is described in column 6, lines 53-58, column 4, lines 56-59, column 5, lines 63-67, and column 6, lines 1-5.

The additional information is provided by the infrared receiver 208 to the FPGA 118. In the case of analog reception, the overlapping function is provided by analog OSD 136 using the additional information supplied by the FPGA 118 through the microprocessor 126. In the case of digital reception, the overlapping function is provided by the digital OSD 160 using the additional information provided by the FPGA 118.

Transmitting MPEG audio signal or analog audio signal is shown in Figure 1C (194), and described in column 6, lines 19-35.

Regarding claims 5, 11-12, 18, 20, Anderson discloses:

A controller generating a plurality of control signals is shown in Figure 1A (126), and described in column 6, lines 53-58;

A tuner for digital broadcasting and analog broadcasting is shown in Figure 1 (106), and described in column 4, lines 49-51;

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A video encoder unit is shown in Figure 1C (175), and described in column 5, lines 58-62;

A video mix unit is shown in Figure 1C (176), and described in column 5, lines 63-67, and column 6, lines 1-5;

A digital/analog converting unit for converting digital audio into analog is shown in Figure 1C (190), and described in column 6, lines 20-24;

An audio selection unit is shown in Figure 1C (194), and described in column 6, lines 24-31.

Regarding claims 6, 13, Anderson discloses:

A luminance/color separation unit coupled to the video mix is shown in Figure 1C (175), and described in column 5, lines 58-62.

Regarding claims 7, 9-10, 16, Anderson discloses the additional information overlapped with the analog video signal or with the MPEG processed signal is shown in Figure 1C (136, 160), and described in column 6, lines 53-58, and column 4, lines 56-59, column 5, lines 63-67, and column 6, lines 1-5.

The additional information is provided by the FPGA 118. In the case of analog reception, the overlapping function is provided by analog OSD 136 using the additional information supplied by the FPGA 118 through the microprocessor 126. In the case of digital reception, the overlapping function is provided by the digital OSD 160 using the additional information provided by the FPGA 118.

Regarding claims 8, 14, Anderson discloses:

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A luminance/color separation unit for analog broadcasting signals is shown in Figure 1C (138), and described in column 4, lines 59-62'

A switching unit to detect, change, and transmit the separated luminance and color signal is shown in Figure 1C (176), and described in column 5, lines 66-67, and column 6, lines 1-5.

Regarding claim 15, Anderson discloses an additional information processing unit to generate the additional information, as shown in Figure 1B (118), and described in column 6, lines 53-58.

Regarding claim 17, Anderson discloses:

A luminance/color separation unit to separate the analog broadcasting signal into a luminance signal and a color signal is shown in Figure 1C (138), and described in column 4, lines 59-62;

A switching unit to change the luminance signal and the color signal to a continuous signal is shown in Figure 1C (176), and described in column 5, lines 63-67, and column 6, lines 1-5.

In claims 1-20, Anderson does not disclose a synchronous separation unit to extract the synchronous signal from the received analog broadcasting signal, adjust the extracted synchronous signal to a synchronous signal of the digital broadcasting signal so that their phase is matched.

Bretl discloses a dual purpose HDTV/NTSC receiver, wherein the sync separation unit is used to extract and adjust the phase difference between the HDTV

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and NTSC signal, as shown in Figure 2, and described in column 2, lines 60-67, and column 3, lines 1-10.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Anderson to include a sync separation unit, as disclosed by Bretl, so that a dual purpose receiver can be built without buffering and rescan every frame in order to convert from NTSC interlaced scan to HDTV progressive scan, and thus, enable low cost receivers to be built.

### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Furuhata U.S. Patent 5,907,364 discloses a display device for information signals.

Uwabata U.S. Patent 6,211,918 discloses a video signal converter and television signal processing.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert T Pham whose telephone number is 703-305-4810. The examiner can normally be reached on M-F 7:30-5; every other Friday off.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile can be reached on 703-305-4380. The fax phone numbers

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for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-308-6606 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-9700.

Robert Pham  
July 12, 2002

  
ANDREW FAILE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600